Notice of Allowability	Application No.	Applicant(s)	
	10/660,708	KURELEK ET AL.	
	Examiner	Art Unit	
	Shelley Self	3725	
The MAILING DATE of this communication appe All claims being allowable, PROSECUTION ON THE MERITS IS (herewith (or previously mailed), a Notice of Allowance (PTOL-85) NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT Re	(OR REMAINS) CLOSED in this app or other appropriate communication GHTS. This application is subject to	olication. If not include will be mailed in due o	d course. THIS
1. \boxtimes This communication is responsive to <u>8/17/05</u> .			
2. X The allowed claim(s) is/are 11-30.			
 Acknowledgment is made of a claim for foreign priority un a)	been received. been received in Application No		on from the
Applicant has THREE MONTHS FROM THE "MAILING DATE" noted below. Failure to timely comply will result in ABANDONM THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.		complying with the req	uirements
 A SUBSTITUTE OATH OR DECLARATION must be submi INFORMAL PATENT APPLICATION (PTO-152) which give 			OTICE OF
5. CORRECTED DRAWINGS (as "replacement sheets") mus	t be submitted.		
(a) 🔲 including changes required by the Notice of Draftspers	on's Patent Drawing Review (PTO-	948) attached	
1) ☐ hereto or 2) ☐ to Paper No./Mail Date			
(b) ☐ including changes required by the attached Examiner's Paper No./Mail Date			
Identifying indicia such as the application number (see 37 CFR 1. each sheet. Replacement sheet(s) should be labeled as such in th	.84(c)) should be written on the drawir he header according to 37 CFR 1.121(c	ngs in the front (not the $\mathfrak l$	pack) of
6. DEPOSIT OF and/or INFORMATION about the deposit attached Examiner's comment regarding REQUIREMENT I	sit of BIOLOGICAL MATERIAL IN FOR THE DEPOSIT OF BIOLOGICA	nust be submitted. N AL MATERIAL.	ote the
Attachment(s) 1. Notice of References Cited (PTO-892) 2. Notice of Draftperson's Patent Drawing Review (PTO-948) 3. Information Disclosure Statements (PTO-1449 or PTO/SB/0 Paper No./Mail Date 4. Examiner's Comment Regarding Requirement for Deposit of Biological Material	8. Examiner's Stateme	(PTO-413), te ment/Comment ent of Reasons for Allov	wance
	TECHNOLO	OGY CENTER 3700	

DETAILED ACTION

Response to Amendment

The amendment filed on August 17, 2005 is sufficient to overcome the prior art reference.

Drawings

The replacement drawings were received on August 17, 2005. These drawings are approved.

Allowable Subject Matter

Claims 11-30 are allowed.

The following is an examiner's statement of reasons for allowance: The prior art of record does not disclose or fairly suggest a knuckle boom apparatus comprising the following:

-a means for producing reach, comprising pump means connected to control said transfer of hydraulic oil between said working ends in combination with the rest of the claimed limitations as set forth in claim 11

-two engine-drive computer-controlled reversible flow pumps connected to supply or remove oil in coordinated fashion from working ends of said cylinders, to capture mechanical energy by the engine from one said pump and use it in the other said pump in combination with the rest of the claimed limitations as set forth in claim 26

Application/Control Number: 10/660,708

Art Unit: 3725

١

-means for producing reach, comprising pump means connected to control said transfer of hydraulic oil between said non-working ends in combination with the rest of the claimed limitations as set forth in claim 27.

The prior art reference, Liu discloses a knuckle boom apparatus comprising a machine base (1), a hoist boom (6) having a proximal end and a distal end, a stick boom (7) having a proximal end and a distal end; a hoist cylinder (10) at least one hydraulic stick cylinder (11), means for producing reach comprising a cylinder (16) and a circuit (figs. 2, 4-6) for supplying hydraulic fluid to the cylinders. Liu does not disclose means for producing reach comprising pump means for controlling said transfer of hydraulic oil between said working ends or nonworking ends. Instead Liu discloses hydraulic oil to shunt (i.e., travel/float) between the hoist and stick cylinders and reach being controlled by a reach cylinder (16). Liu discloses pumps (30, 32) and a means for supplying hydraulic oil/fluid to the cylinders. Liu's pump means (30, 32) do not control the transfer of hydraulic oil between said working ends or non-working ends as set forth in claim 11. Additionally, Liu does not disclose two engine-drive computer-controlled reversible flow pumps connected to supply or remove oil, to capture mechanical energy by the engine from one said pump and use it in the other said pump as set forth in claim 26. Accordingly, Liu fails to anticipate or render obvious the claimed invention as set forth in claims 11, 26 and 27.

Neither the prior art of record, nor any combination thereof discloses the claimed invention as set forth in claims 11, 26 and 27. Accordingly claims 11-30 are allowable over the prior art of record.

Application/Control Number: 10/660,708

Art Unit: 3725

Page 4

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shelley Self whose telephone number is (571) 272-4524. The examiner can normally be reached Mon-Fri from 8:30am to 5:00pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's Supervisor, Derris Banks can be reached at (571) 272-4419. The fax phone numbers for the organization where this application or proceeding is assigned are (571) 273-8300 for regular and After Final communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on accessing the Private PAIR system contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SSelf

September 21, 2005

DERRIS H. BANKS SUPERVISORY PATENT EXAMINER TECHNOLOGY CENTER 3700